

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, 10, 19, 20, 22 and 23 in accordance with the following list of claims.

1. (Currently Amended) A facsimile machine, comprising:
a detection unit detecting transition points in a width direction in image data representing an image of a page having a width greater than a printing width of the facsimile machine, the image data including blank areas at right and left edges of the image of the page in the width direction; and
an adjustment unit coupled to the detection unit, having means for deciding whether the image data will be adjusted on the basis of the detected transition points.
2. (Currently Amended) The facsimile machine of claim 1, wherein the image data are coded data that have not yet been expanded into bit-mapped image data, and the detection unit detects ~~margins~~ the blank areas at the right and left edges of the page image on the basis of the transition points of the coded data.
3. (Previously Presented) The facsimile machine of claim 1, wherein the adjustment unit has means for adjusting the image data by adjusting a printing position of the image data in a horizontal scanning direction corresponding to the width direction.
4. (Previously Presented) The facsimile machine of claim 1, wherein the adjustment unit has means for adjusting the image data by zooming the image data.
5. (Previously Presented) The facsimile machine of claim 4, the adjustment unit zooms the image data by adding an offset to horizontal coordinates of said transition points, then multiplying by a zoom ratio, the horizontal coordinates being measured in the width direction.
6. (Previously Presented) The facsimile machine of claim 5, wherein the image data is comprised of horizontal scanning lines and the adjustment unit changes said offset

once per horizontal scanning line.

7. (Original) The facsimile machine of claim 5, wherein the adjustment unit assigns a random value to said offset.

8. (Original) The facsimile machine of claim 5, wherein the adjustment unit assigns a fixed value to said offset in areas with comparatively few said transition points, and assigns a random value to said offset in areas with comparatively many said transition points.

9. (Original) The facsimile machine of claim 8, wherein the adjustment unit distinguishes between said areas with comparatively few said transition points and said areas with comparatively many said transition points within each said horizontal scanning line.

10. (Currently Amended) A method of processing image data, representing an image of a page, in preparation for printing of the image data by a facsimile machine having set printing margins and a printing width less than a width of the page image, the image data including blank areas at right and left edges of the image of the page in a width direction of the page image, the method comprising the steps of:

(a) detecting ~~margins~~ the blank areas in the width direction in the image of said page from the image data;

(b) comparing the detected ~~margins~~ blank areas with the printing margins in the width direction of the facsimile machine; and

(c) modifying the image data according to differences between the detected ~~margins~~ blank areas and the printing margins.

11. (Original) The method of claim 10, wherein said image data comprise run-length data.

12. (Original) The method of claim 10, wherein said step (c) comprises repositioning

the image of said page.

13. (Original) The method of claim 10, wherein said step (c) comprises zooming the image of said page.

14. (Previously Presented) The method of claim 13, wherein said step (c) further comprises the steps of:

(d) determining horizontal coordinates, measured in the width direction, of transitions between different picture-element values in the image of said page;

(e) modifying said horizontal coordinates by adding an offset; and

(f) multiplying the modified horizontal coordinates by a zoom ratio.

15. (Original) The method of claim 14, said step (c) further comprises the step of:

(g) changing said offset once per horizontal line of picture elements in the image of said page.

16. (Original) The method of claim 14, wherein said step (c) further comprises the steps of:

(h) distinguishing between first areas, in which said transitions occur comparatively frequently, and second areas, in which said transitions occur comparatively infrequently, in the image of said page;

(i) assigning a randomly varying value to said offset in said first areas; and

(j) assigning a fixed value to said offset in said second areas.

17. (Original) The method of claim 16, wherein said step (h) includes counting said transitions in each horizontal line of picture elements in the image of said page, said offset having a single value in each said horizontal line.

18. (Original) The method of claim 16, wherein said step (h) includes comparing distances between said transitions with a predetermined threshold, thereby enabling said offset to vary within each horizontal line of picture elements in the image of said page.

19. (Original) The method of claim 10, wherein the detected margins include a left detected margin and a right detected margin, the printing margins include a left printing margin and a right printing margin, and step (c) further includes the steps of:

(k) reducing the image of said page in width, by zooming the image horizontally, if the left printing margin exceeds the left detected margin and the right printing margin exceeds the right detected margin;

(l) shifting the image of said page rightward if the left printing margin exceeds the left detected margin and the right printing margin does not exceed the right detected margin; and

(m) shifting the image of said page leftward if the right printing margin exceeds the right detected margin and the left printing margin does not exceed the left detected margin.

20. (Currently Amended) The facsimile machine of claim 1, wherein:

the detection unit detects ~~margins~~ the blank areas at the right and left edges of the image of the page in the width direction of the page image on the basis of the transition points in the width direction of the image data; and

the adjustment unit compares the detected ~~margins~~ blank areas of the page image with set printing margins, and makes a decision that the page image will not be reduced in width for printing if the set printing margins are smaller than the detected ~~margins~~ blank areas of the page image.

21. (Previously Presented) The method of claim 10, wherein the printing margins are set with reference to the width of the detected page image.

22. (Currently Amended) A method of processing image data, representing an image of a page, in preparation for printing of the image data by a facsimile machine having set printing margins and a printing width less than a width of the page image, the image data including blank areas at right and left edges of the image of the page in a width direction of the page image, the method comprising the steps of:

(n) detecting ~~margins~~ the blank areas in the width direction in the image of said page from the image data;

(o) comparing the detected ~~margins~~ blank areas with the printing margins in the width direction of the facsimile machine; and

(p) making a decision whether the image data will be adjusted on the basis of the difference between the detected ~~margins~~ blank areas of the page image and the set printing margins.

23. (Previously Presented) The method of claim 22, wherein step (p) comprises making a decision that the page image will not be reduced in width for printing if the set printing margins are smaller than the detected ~~margins~~ blank areas of the page image.

24. (Previously Presented) The method of claim 22, wherein the printing margins are set with reference to the width of the detected page image.

25. (Previously Presented) The facsimile machine of claim 1, wherein the image data is comprised of scanning lines and the detection unit detects leftmost and rightmost transition points in the width direction in the image data by detecting first and last transition points for each of the scanning lines.

26. (Previously Presented) The facsimile machine of claim 20, wherein the image data is comprised of scanning lines and the detection unit detects leftmost and rightmost transition points in the width direction in the image data by detecting first and last transition points for each of the scanning lines.